

## Marshall Library Gets Cryptology Collection

LEXINGTON, Va., Aug. 14 (AP)—The cryptologic collection of the late Lt. Col. William F. Friedman, the mathematical genius credited with breaking the Japanese diplomatic cypher during World War II, has been presented to the George C. Marshall Research Library here.

The donation provides 3,000 items dealing not only with military subjects but also with Friedman's side excursions into literary and archaeological coded mysteries.

"I remember hearing my husband say many times that it was the largest unclassified collection of cryptography and cryptoanalysis in the world," said Mrs. Friedman, a noted cryptoanalyst in her own right, from her home in Washington today.

Friedman, who died in 1969, was considered the U.S. government's leading cryptologist for almost half a century.

He first became interested in the subject before World War I when he met his future wife at Riverbank Laboratories in Illinois. The then Elizabeth Smith was researching the theory that Sir Francis Bacon was the true author of Shakespeare's works.

Friedman began studying the ciphers that Bacon's ad-probe had traveled 124 million miles as of 3 p.m. EDT. The craft is scheduled to begin orbiting Mars Nov. 13.

Mariner 9 will be the first man-made object to orbit another planet and will investigate Mars with TV cameras and other instruments for as long as a year.

herents contended he had planted in a number of plays, and from then on he had found his career.

During World War I, the couple served as government

code experts. Mrs. Friedman later was employed by the Treasury Department to unscramble codes used by rum-runners during Prohibition and by the Navy as an analyst during World War II.

Her husband, meanwhile, was chief cryptoanalyst with the War Department from 1921 to 1947, when he became chief cryptologist for the Defense Department. He was also a special assistant to the director of the National Security Agency during the 1950s and from 1955 until his death was a defense consultant.

For his contributions to the country, Friedman received the War Department's Commendation for Exceptional Civilian Service. In 1956 Congress voted him \$100,000 as partial compensation for the commercial rights of his inventions that were kept secret.

Outside their government service, the Friedmans published "The Shakespearean Ciphers Examined," which refutes the Baconian theory. They also studied archaeological mysteries such as Stonehenge in England, the Easter Island statues in the Pacific and the still-undeciphered Mayan inscriptions in Mexico.

These efforts are included in the books, pamphlets, technical papers, periodicals, microfilms, slides, clippings, manuscripts and cryptographic devices in the collection. Also included are copies of codes used during the Civil War and World War I.

The Marshall Library, adjacent to the campuses of Virginia Military Institute and Washington and Lee University, houses the private and public papers of the World War II Army Chief of Staff, but has expanded during the last year with a number of new collections.

## HUSBAND-WIFE TEAM

### Code-Breakers' Work Presented to Library

By BRIAN KELLY  
Star Staff Writer

Just before World War II, when the Japanese were planning their attack on Pearl Harbor, William F. Friedman led the group of U.S. cryptologists who broke Tokyo's famous diplomatic "Purple Code."

The breakthrough didn't prevent the attack on Pearl Harbor, but it did give U.S. intelligence an advantage over the unsuspecting Japanese in the early stages of the war. The coup also was typical of the late lieutenant colonel's career as the nation's most eminent cryptologist for nearly 50 years.

Now, a wide-ranging collection of cryptologic materials that he and his wife Elizabeth gathered in parallel careers has been presented to the George C. Marshall Research Library at Lexington, Va.

#### 3,000-Item Collection

Spokesmen for the Marshall facility, a research memorial to the Army's chief of staff during World War II, call the 3,000-item Friedman collection, "one of the most important and extensive private collections of cryptologic material in the world."

A gift from Friedman, who died in 1969, and his widow, the collection ranges from contemporary and historic cryptology to the couple's joint studies of archaeology and the Bacon-Shakespeare literary controversy.

Among the contemporary materials is all the published matter Friedman could find on the great national debate over who was to blame for U.S. lack of vigilance at Pearl Harbor, as well as material relating to modern cryptanalysis, cryptography, secret writing and electronic communications, and a handful of simple hiding devices.

Another segment of the collection consists of the late Father Theodore C. Petersen's studies at Catholic University of the mysterious Voynich manuscript, thought to be the work of the

medieval monk, Roger Bacon. Both Friedman and Father Petersen were among the scholars who have attempted, unsuccessfully, to decipher the manuscript.

The latter also incorporated studies by the Friedman couple on the claims of some scholars that Sir Francis Bacon was the real author of Shakespeare's work. The couple's research in this field uncovered no proof of Bacon's alleged role and resulted in a book, "The Shakespearean Ciphers Examined".

Still another part of their collection is devoted to literature they called the "cult of unintelligibility", or work of a cryptographic nature by James Joyce, Gertrude Stein, and other authors apparently striving to conceal their real meanings.

A native of Russia, Friedman first was a student of genetic studies at the Riverbank Laboratories at Geneva, Ill., before World War I. His future wife, whom he met there, was studying the Bacon question, and this turned Friedman's talents to cryptography.

#### Rewarded by Government

When World War I erupted the Friedman couple trained the U.S. Army's first class of cryptographers. Later, Friedman himself entered the Army and soon became director, and chief expert, of the nation's military code experts until after World War II.

Friedman was one of the few men to receive both the Medal for Merit and the National Security Medal in recognition of his work. In 1956, Congress awarded him a \$100,000 compensation for code-breaking machines and other devices that he developed but could not patent and sell commercially because of their secret nature.

Mrs. Friedman, who still lives in the District, later developed a code system for the International Monetary Fund.